THE IMPLICATIONS OF NATIONAL HEALTH INSURANCE FOR AMBULATORY CARE SERVICES IN NEW YORK CITY*

CHARLES BRECHER, Ph.D., KAREN BRUDNEY, AND MIRIAM OSTOW

Conservation of Human Resources
Columbia University
New York, N.Y.

The long years of debate in the United States concerning society's responsibility for the health care of the citizenry are culminating in the probable enactment of some form of national health insurance (NHI). This suggests that nationally we perceive financing as a primary constraint on the efficacious and equitable application of our great medical capacity for enhancement of the health of the people. Alternatively, it suggests that at least on this one aspect of health care we have been able to achieve consensus as to policy. However, a decade of experience with financial entitlement to health care for selected portions of the population has indicated that such programs evoke unanticipated consequences, not only for their beneficiaries but for the system as a whole. Accordingly, much thought now is being directed toward the implications of pending legislation.

Ambulatory care, while it accounts for a minor portion of all medical expenditure, is the component of medical care which is universally utilized, which has been affected least by voluntary insurance, and which has priority in the concerns of the individual citizen regarding our system of medical care. Medical planners, too, have been increasingly critical of the failures of the medical system in meeting ambulatory care needs; accessibility, costs, and quality have all been judged unsatisfactory.

This paper focuses on New York City where, despite an agglomeration of institutional and manpower resources unmatched in the nation and perhaps in the world, a large sector of the population is served insufficiently. Our purpose is to provide both background information and sug-

^{*}Presented before the Task Force on the Impact of National Health Insurance of the New York Metropolitan Regional Medical Program at the New York Academy of Medicine April 24, 1975.

Address for reprint requests: Charles Brecher, Ph.D. Conservation of Human Resources, Columbia University, 525 Uris, New York, N.Y. 10027

gestive ideas for an analysis of the implications of NHI for ambulatory care services in New York City. We undertake three specific tasks: 1) to make explicit some assumptions about the NHI program whose implications are to be discussed, 2) to describe the present patterns of utilization of ambulatory care in New York City, and 3) to offer suggestions about the probable outcomes and possible alternatives for ambulatory care after enactment of an NHI program.

ASSUMPTIONS ABOUT A PROBABLE NHI PROGRAM

Predicting the content of any piece of legislation, much less one which is surrounded by controversy, is risky. What follows merely represents the combined views of the authors on what is probable with respect to three issues—coverage, benefits, and mechanisms of payment. Other important issues such as methods of financing and the role of the private insurance industry are not considered, since these will not affect patterns of ambulatory care directly. These assumptions are presented chiefly as a basis for further discussion.

Coverage. Almost by definition, an NHI program must provide universal coverage. That is, all persons, regardless of age, income, or employment status, will be afforded similar benefits. Although there have been discussions of alternatives, such as a comprehensive health program for children (dubbed "kiddie care") or health insurance benefits for recipients of unemployment insurance, this paper will consider only the implications of a universal program.

Benefits. Almost of all of the contending NHI proposals include payments for a wide range of hospital and physician's services. The more significant differences among the present bills relate to the use of coinsurance and deductibles, which together are referred to as out-of-pocket liability. The variation in out-of-pocket liability among these proposals is extensive. The Kennedy-Corman (formerly Kennedy-Griffiths) proposal provides "first dollar" coverage, that is, there is no out-of-pocket expense for the services of the physician. In contrast, the Long-Ribicoff proposal is referred to as a "catastrophic" bill because for most families it would provide no medical benefits until a deductible of \$2,000 had been met.

Some indication of how this important issue may be resolved can be drawn from compromise bills submitted by the Nixon administration and by Senator Edward M. Kennedy in the second session of the 93rd Congress. Both bills incorporate income-conditioned deductibles and coinsurance.

	Number of persons	%
No liability	1,437,000	19
Sliding liability	2,010,000	26
Maximum liability	4,278,000	55
Total	7,725,000	100

TABLE I. DISTRIBUTION OF THE POPULATION OF NEW YORK CITY IN 1973
USING THE INCOME CRITERIA SPECIFIED
UNDER THE KENNEDY-MILLS BILL.

The reasoning behind the use of these copayment mechanisms is threefold:

- 1) Copayments limit the total tax-dollar cost of an NHI program.
- 2) Copayments limit excessive utilization of services.
- 3) Income-conditioned copayments reduce the inequity associated with imposing out-of-pocket requirements on poor families.

The way in which income-conditioned copayments may be designed is illustrated in both the Kennedy-Mills and Nixon administration bills. Although specific provisions differ somewhat, both bills create three groups, each with a different level of out-of-pocket liability. The first group consists of low-income individuals and families who face no out-of-pocket expense for medical care. The second group consists of those with incomes slightly above poverty levels. The out-of-pocket amount they are required to pay is a percentage of their incomes; the maximum is set at a maximum-income level. For example, in the Kennedy-Mills bill a family of four is required to pay up to 25% of the portion of its income falling between \$4,800 and \$8,800 annually. The third group consists of all families whose incomes are above the maximum level set for the sliding-liability group. This group is required to pay deductibles and coinsurance up to a fixed maximum out-of-pocket liability of \$1,000 per year under the Kennedy-Mills bill.

In order to consider the effect of such a program on New York City it is necessary to fill in some of the details of the benefit provisions. Table I shows the size of each group if the general income criteria used to establish the three groups in the Kennedy-Mills bill were applied to the present population of New York City.*

The no-liability group is similar in number and income levels to the population now receiving Medicaid in New York City. With some possible exceptions to be noted later, the nature of assumed NHI coverage for

^{*}See Appendix A for an explanation of the method used to estimate the population groups.

this group is similar to the present entitlement under Medicaid. The sliding-liability group consists of families that are close to the poverty line ("the near poor"). In the above estimates a family of four with an income between \$4,800 and \$8,800 is placed in this group. (Higher or lower figures are used for larger or smaller families, respectively.) This group represents approximately one quarter of the population. Finally, there is the majority of the population, those whose incomes are considered high enough to permit payment of a substantial deductible (\$150 per person in the Kennedy-Mills bill) as well as an additional coinsurance charge (25%), up to some maximum figure (\$1,000 per family in the Kennedy-Mills bill). It is largely in terms of these groups that we shall describe the present patterns of ambulatory care and the implications of an NHI with incomeconditioned deductible and coinsurance features.

Data relating to characteristics other than income and family size are unavailable. Demographic factors such as age and sex which are related to the demand for different types of care are required to make accurate projections of the impact of expanded entitlement. In addition, such data would permit a more detailed delineation of current patterns of care.

Mechanisms of payment. A third critical characteristic of any NHI plan is the way in which those who provide care are paid. Two aspects are important: the principle of payment and the procedures for collection.

With respect to the principle of payment, our assumptions relate more to what will *not* be included than to the exact nature of the program. Specifically, exclusive reliance on insitutional budgeting, capitation payments, or both is improbable. However, voluntary enrollment in an organization financed by capitation payments, e.g., Health Maintenance Organizations (HMO), is likely to be permitted, provision being made for applying NHI benefits to the annual premium.

For those who do not enroll in an HMO, free choice of physicians and clinics is likely to be retained. Both the Kennedy-Mills and the Nixon administration proposals provide payment for institutional ambulatory care (hospital clinics and emergency rooms) on a cost-related basis, although the utilization of prospective rather than retrospective formulas is specified. Physicians in private practice will continue to be paid on a fee-for-service basis, but the precise nature of the fee system is an open issue. Options include fixed fees which are determined unilaterally by the government (as it determines fees for Medicaid in New York State), fixed fees which are formally negotiated between representatives of physicians

and government (as in Canada), and the "customary and reasonable" principle (as used for Medicare). An additional complication is the possibility of different arrangements for each population group. For example, the payment of fixed fees for services to those in the no-liability group and of unregulated fees for services to those in the maximum-liability group would be permissible under the Nixon administration bill.

Procedures for collection are another important issue about which no precise assumptions can be made. Either the government or the providers of care will have to assume responsibility for collecting out-of-pocket liabilities. Providers are given responsibility either when benefits are paid to the consumer after he has paid the provider or when NHI benefits are paid to the provider, less any deductible or coinsurance charge. The government assumes responsibility for collection when NHI payments are made in full to providers, and the coinsurance or deductible charges are collected from the consumer by the government.

Various combinations of principles of payment and procedures for collection are possible for each of the population groups. The Nixon administration bill, for example, proposes that full reimbursement, including copayments to the provider, come from the program itself (or the insurance carrier) rather than directly from the consumer. However, for the maximum liability group, physicians could charge fees above the insurable amount and collect these additional sums directly from the patient. The Kennedy-Mills plan is slightly more complicated. Institutional providers would receive all payments from the program and the government would be responsible for collecting copayments and deductibles. Physicians, however, have the choice of receiving "customary and reasonable" fees as full payment directly from the government or, if charging more than the customary and reasonable fee, of billing the patient for the entire amount—leaving collection of the reimbursible portion to the patient. While it is impossible to predict the nature of any future bill, some of the implications of alternative arrangements will be discussed later in this paper.

Summary of assumptions. The remainder of this paper is based on the assumption that any probable NHI program will 1) cover virtually the entire population, 2) contain income-conditioned copayments, and 3) continue the principles of free choice and fee-for-service in the selection and payment of physicians. NHI will, as its name implies, be an *insurance* program providing financial protection only. Changes in the organization

Table II. ESTIMATED AMBULATORY SERVICES IN NEW YORK CITY IN 1973 BY POPULATION GROUP (NUMBER OF VISITS)

											;		
				Voluntary		Health dep	Health department programs	ograms	Free-SI	Free-standing facilities			
	rersons in group (No.)	Voluntary OPD	Municipal , OPD	proprietary ER	ersons Roup Voluntary Municipal proprietary Municipal (No.) OPD OPD ER ER	Child health	Child School health health	All others	HIP	Union centers Others	7	Private practice	Total visits
Maximum liability— Total	4,278,000	986,000	750,000	239,000					2,157,000 666,000	900,999		NA 760 000	۷ 2
Enrolled in GHI Enrolled in HIP	1,052,000 584,000								2,157,000			33,13	<u>:</u>
Union centers Patients	108,000									999			
All others Sliding liability—	3,534,000					3600 000	413 000	406 000			495.000	ď Z	۷ Z
Total No liability—total	2,010,000	.010,000 1,016,000 2,175,000 4,437,000 1,410,000 1,079,000 5,000	1.079,000	369,000 561,000		619,000 177,000 248,000 219,000	248,000	219,000	216,000 216,000		495,000 5	5,789,000	10,814,000
All others	1,378,000												
Totals	7,725,000	3,411,000	3,254,000	1,680,000	7,725,000 3,411,000 3,254,000 1,680,000 1,708,000 538,000 662,000 625,000 2,373,000 666,000 990,000 NA	538,000	662,000	625.000	2.373,000	999	000'066	Y Z	Y Z

*Totals may disagree slightly due to rounding.

OPD = hospital outpatient department. ER = hospital emergency rooms. NA = data not available. HIP = Health Insurance Plan of Greater New York, GHI = Group Health Incorporated. Source: See Appendix B.

of services will not be mandated; in fact, the task of this paper is to identify the implications of such a program for the nature of ambulatory care in New York City.

PRESENT PATTERNS OF AMBULATORY CARE

Present patterns of care can be described in terms of two important features—the volume of care received by the population (i.e., rates of utilization) and the types of providers from which the care is received. For New York City we have identified seven general categories of providers: physicians in private practice, outpatient departments of voluntary hospitals (both clinics and emergency rooms), outpatient departments of municipal hospitals (both clinics and emergency rooms), the various programs sponsored by the Department of Health of the City of New York, the group practices operating within the city under the Health Insurance Plan of Greater New York (HIP), health centers which are operated or sponsored by labor unions, and a miscellaneous category incorporating various other types of free-standing clinics. Each of the three population groups identified earlier may be described in terms of the volume of care its members receive and the locus of that care (see Table II).

Medicaid. As noted earlier, the approximately 1.4 million New Yorkers who would have no out-of-pocket liability are virtually the same group as those now covered by Medicaid. Of the present Medicaid population, almost 59,000 are enrolled in HIP, but the vast majority are not a part of any capitation system and depend upon a variety of providers for their care. In 1973 this Medicaid group visited physicians in all settings approximately 10,814,000 times, for an estimated average utilization rate of 7.5 visits per person per year. This figure is significantly higher than the national average both for all persons (5.0) and for those in the lowest income range (5.6).

More than 45% of the Medicaid visits are provided in an institutional setting, that is, in a location other than a private physician's office. The largest source of institutional care for this group is hospital outpatient departments (OPD) and emergency rooms (ER), which together account for more than 3.6 million visits. The voluntary sector provides a larger share (56.6%) of OPD visits, while the municipal hospitals account for the larger share (52.5%) of ER visits. Clients of Medicaid also account for a large number of visits (604,000 or 33% of all visits) to various programs of the Department of Health, and account for a substantial share of visits to free-standing clinics.

TABLE III. MEDICAID PAYMENTS TO PHYSICIANS, FOURTH OUARTER 1973

Category of physicians	Total payments	Total participating physicians (No.)	% of total payments to top 10% of physicians
All physicians	24,221,430	7,747	64.6
General practitioners	5,900,847	2,662	65.1
All specialists	18,320,583	5,085	63.7
Selected specialties			
All internal medicine	4,858,310	1,305	62.8
(cardiovascular disease)	(481,767)	(144)	(74.4)
All psychiatry and neurology	3,015,511	699	62.3
Pediatrics	2,821,609	532	57.1
All surgery	1,721,066	911	63.0
(orthopedic surgery)	(179,904)	(164)	(64.1)
Radiology	1,545,658	`178 [′]	65.0
Obstetrics and gynecology	1,443,698	429	56.0
Pathology	193,711	83	68.3
Physical medicine	118,679	70	78.8

Source: The Department of Health of the City of New York

While much of the discussion of ambulatory care for the poor focuses on institutions, it is important to note that the majority of the ambulatory Medicaid visits (almost 55%) are to private practitioners. This figure would be higher if private psychiatric and methadone-maintenance treatments were included. Much of this private practice is concentrated among a small number of practitioners. Although available data do not permit a description of the concentration of services, it is possible to document the concentration of Medicaid payments among providers of care. Table III presents the total payments, total number of participating physicians, and the share of payments accounted for by the 10% of physicians with the highest payments. Among general practitioners more than 65% of the payments are made to 10% of the physicians, among all specialists approximately 64% of the payments went to the top 10%, and in selected specialties the figure reaches as high as 79%. Thus, while Medicaid has provided access for the poor to private practitioners, much of this care is provided by physicians seeing almost exclusively a population eligible for Medicaid

The cost of providing ambulatory care to the Medicaid population is great (see Table IV). The Department of Health of the City of New York reports that in 1973 about \$365.6 million, or about \$254 per client, was spent on ambulatory care services under Medicaid. The total consists of \$175.2 million for institutional facilities, \$126.2 million for private practitioners, and \$64.2 million for other providers. The discrepancy between

TABLE IV. MEDICAID EXPENDITURES FOR AMBULATORY CARE, 1973

	Millions of dollars
Institutional facilities	175.2
Municipal hospitals/clinics	59.2
Voluntary hospitals/clinics	101.0
HIP premiums	6.7
Methadone maintenance clinics	8.3
Private practitioners	126.2
Physicians	81.4
Podiatrists	8.0
Optometrists	6.0
Ophthalmic dispensers	.9
Therapists	.3
Chiropracters	1.6
Other vendors	64.2
Pharmacies	43.9
Laboratories	8.7
Appliance vendors	5.4
Transportation	6.2
Fotal Total	365.6

Source: Department of Health of the City of New York

the institutional share of total visits, 45%, and of total expenditure for physician care, 66% (of the combined total of clinic and private physician payments), underscores the high unit cost of ambulatory care under present institutional arrangements. The Medicaid expenditures are financed as follows: approximately 25% comes from city tax funds, 25% from state funds, and 50% from federal funds.

In the pattern of utilization by the Medicaid population, three features are conspicuous. First, the absence of any out-of-pocket liability produces high rates of utilization. At a rate of 7.5 visits per person per year, New York's Medicaid population sees physicians more often than most other segments of the population.

Second, one may infer from the Medicaid experience that mechanisms of payment may exert an important influence on the locus of care. New York's Medicaid program reimburses institutional providers on a cost basis, while private practitioners are paid according to a fee schedule set by the state government. Fees have been set low (\$7.80 for a visit to a general practitioner), while few limits have been imposed on the payments to institutions. Thus, as of 1975, Long Island Jewish Hospital was receiving \$73.50 for a visit to its OPD. Consequently, clients of Medicaid have encountered little difficulty in receiving care from voluntary as well as from municipal hospitals. In contrast, many physicians have been reluctant

to serve Medicaid patients; those who do so often must alter their style of practice. They may promote shorter, more frequent visits in order to raise their incomes and may "specialize" in Medicaid clients in order to achieve economies of scale in the clerical work associated with Medicaid billings. A striking illustration has been the proliferation of "Medicaid mills," groups of private practitioners located in or near low-income areas which provide high-volume care of questionable quality to clients of Medicaid. Conversely, Medicaid failed to realize the objective that its early proponents had envisioned, i.e., to enlarge the number of private practitioners in the central city and to provide access to a broad range of private providers through the availability of payment.

Third, the experience of Medicaid suggests that consumers prefer voluntary to municipal hospital care and prefer private physicians to either. Immediately after the implementation of Medicaid, the total number of clinic visits, which had been increasing, leveled off (1967). However, diametrically opposing trends in utilization appeared within the institutional sector—an increase of 11.8% in the voluntary hospitals paralleled a decrease of 9.4% in the municipal hospitals (see Table V). For the following two years total visits continued to decline while the shift to the voluntary hospitals persisted. With the subsequent reduction of eligibility for Medicaid (1968-1969) and the decrease in fees allowed private physicians (1969), total clinic visits again began to climb and municipal visits again increased.

The near poor. No data are available concerning the use of private practitioners by the more than two million New Yorkers who would face a sliding liability under the assumed NHI program. Thus, it is not possible even to estimate an over-all rate of utilization for this group. However, since incomes are low and private insurance, if any, is likely to provide only limited ambulatory care benefits, it may be assumed that the use of private practitioners is lowest in this group.

The financial barrier which limits access to private practitioners for the near poor is less significant as a barrier to institutional services (Table II and Appendix). Over all, we estimate that six million visits, or approximately three per capita, are provided to this group in organized settings. This compares to an estimated 3.5 institutional visits per capita for the Medicaid population, indicating only slightly less access for the near poor. However, the near poor depend far more heavily on municipal facilities than does the population which is eligible for Medicaid. Municipal hospi-

Table V. TRENDS IN UTILIZATION OF OUTPATIENT DEPARTMENTS, 1963—1973

	N	umber of visits	
	Total	Voluntary hospitals	Municipal hospitals
1963	5,588,026	2,675,485	2,912,541
1964	5,790,968	2,682,990	3,107,978
1965	6,236,261	2,941,313	3,294,948
1966	6,194,939	2,767,596	3,427,343
967	6,201,519	3,095,561	3,105,958
1968	5,973,357	3,127,326	2,846,031
1969	5,901,810	3,118,627	2,783,183
1970	6,072,856	3,117,193	2,955,663
1971	6,330,705	3,199,395	3,131,310
972	6,651,913	3,356,503	3,295,410
1973	6,665,481	3,411,329	3,254,152
	Percentage	change from previous yea	ar
	Total	Voluntary hospitals	Municipal hospitals
1964	+3.6	+ .3	+6.7
1965	+7.7	+9.6	+6.0
1966	-0.7	-5.9	+4.0
1967	+0.1	+11.8	-9.4
1968	-3.7	+1.0	-8.4
1969	-1.2	-0.3	-2.2
1970	+2.9	0.0	+6.2
1971	+4.2	+2.6	+5.9
1972	+5.1	+4.9	+5.2
1973	+0.2	+1.6	-1.2

Source: Health and Hospital Planning Council of Southern New York

tals and Department of Health clinics account for 69% of the institutional visits among the near poor, compared to 47% for Medicaid clients. The frequent inability of families that are near poverty to pay for care—either through Medicaid or out-of-pocket—evidently has limited the willingness of voluntary hospitals to provide them with outpatient services, although a significant number of visits are provided in the voluntary sector.

This group now appears to have the lowest over-all utilization rate and the most restricted choice for the locus of care. An inability to meet the full cost or prevailing charges for ambulatory care limits access to private practitioners and, to a lesser extent, to voluntary hospital clinics. Consequently, the major source of care for members of this group is municipally financed services provided by the Health and Hospitals Corporation (HHC) and the Department of Health.

There are considerable costs to the city government for providing care to

the near poor. In the 1975 fiscal year New York City provided HHC with a subsidy of approximately \$270 million for the costs of care to patients not covered by some third party, including Medicaid. Since an estimated 85% of all HHC inpatient care is covered by some third party, a substantial portion of the subsidy is required to cover the costs of ambulatory care. All of this subsidy is funded from local tax revenues without any state or federal assistance. In addition, the budget for the Department of Health of the City of New York, 45% of which is supported by state and federal aid. is now \$116 million. We estimate that the share of the HHC subsidy attributable to outpatient services and the portion of the Department of Health budget devoted to direct personal health services together total roughly \$230 million. This indicates an expenditure by the municipal government of approximately \$115 per person in the near-poor category. An estimate of the total cost of care for this group would have to add to this amount the sums paid directly by consumers and the deficits incurred by voluntary hospitals in providing ambulatory care to this group.

The maximum liability population. The majority (55%) of New Yorkers have family incomes sufficient either to pay directly for their ambulatory care or to purchase insurance which, at least partially, covers the costs of ambulatory services. The current patterns of care for this large group can best be described in terms of four subgroups: those enrolled in HIP, those utilizing health facilities sponsored by their labor unions, those enrolled in a Group Health Incorporated (GHI) plan, and all others.

As a whole, this population makes relatively little use of hospital-based ambulatory care. The 4.3 million persons in this group account for an estimated two million hospital clinic and ER visits or about 0.5 visits per person. This compares with 2.2 hospital outpatient visits per person for the near poor and 2.5 visits per person for Medicaid clients. Moreover, as much as 50% of their hospital visits are for ER rather than OPD care, in contrast to the Medicaid population and the near poor, among whom only 32% and 28%, respectively, of the hospital visits are for ER care. Thus, the majority of the population with maximum liability makes relatively little use of hospital-based ambulatory services other than ER care.

Approximately 584,000 persons who were not Medicaid clients were enrolled in one of the 29 HIP groups in New York City. This population visited the HIP facilities an estimated 2,157,000 times for an average of 3.7 visits per person. This rate is lower than the national average, suggesting that the prepaid group-delivery structure provides satisfactory care with a lower volume of visits or that HIP enrollees also make use of other

providers, even though this use requires some out-of-pocket expenditure.

There are 22 union-sponsored health clinics in New York City. Of these, however, only nine provide comprehensive services in a variety of medical specialties. Six additional clinics provide general medical services only, three exist merely for diagnostic and screening purposes, one contains only dental and podiatric facilities, and one contains only dental facilities. The two remaining union health centers, those of the National Maritime Union and the Seafarers Union, function as check-out points for departing seamen; their clientele consists primarily of transients.

Figures for the nine comprehensive-care clinics indicate that a total of 638,000 union members and their families are eligible to receive care. Only 17%, or 107,500, actually use the facilities. For many, the health clinic is located inconveniently; others may simply prefer alternative sources of care for personal reasons. For those relying on the comprehensive centers, we estimate the average number of visits per year to be 6.2.* Since this figure includes only those persons who made at least one visit, it naturally is higher than the average for other groups or for the national population. Further, a disproportionate share of utilizers are retired union members who also are eligible for Medicare.

GHI covers an estimated 1,052,000 New Yorkers, making it the largest source of private ambulatory-care insurance. It has no facilities for the provision of medical services, and serves exclusively as a mechanism for financing the care purchased by enrollees from a panel of physicians (among whom they have free choice). Originally, participating physicians all agreed to accept GHI fees as payment in full: now the enrollee has the option of accepting reimbursement of a fixed amount per service and paying out-of-pocket the excess charged by some providers. No precise utilization figures are available for New York City enrollees alone, but among the entire GHI population the estimated number of physician visits per person is 2.6. This low figure requires explanation. Most obvious are a number of factors suggesting favorable selection: enrollments are drawn from the regularly employed population with presumably good levels of health, and few, if any, enrollees are more than 65 years of age, the group which manifests the highest rates of utilization. Employed enrollees also are less likely to spend the time required to seek medical care for trivial complaints than the unemployed, who may disregard the time cost. It may be hypothesized further that, given the choice offered by New York City

^{*}See Appendix B for the source of this estimate.

to its civil servants (who constitute the largest fraction of enrollees), high utilizers of medical services might elect to join HIP rather than GHI in order to realize the economies of a completely prepaid plan. Finally, actual utilization may be understated due to the failure of some enrollees to file small claims.

The costs of care vary among the four subgroups. The 1975 HIP premium for a single adult was \$112.08, for a two-person family \$224.40, and for a family of three or more persons \$336.60; similar figures for GHI are \$75.48, \$148.56, and \$224.28.† Comprehensive data are not available on the costs of operating union health centers, but figures from one plan, the Union Family Medical Fund of the Hotel Industry of New York City, indicate an annual per-patient cost of approximately \$158.² For the remaining segment of the maximum-liability population, there is no way to estimate current expenditures for ambulatory care.

IMPLICATIONS OF NHI

How would the present patterns of ambulatory care be affected by NHI? For purposes of discussion, the following propositions are set forth as possible consequences.

1) The extended entitlement to health-care financing provided by NHI will effect little initial change in the volume of care sought by persons in both the maximum-liability and the no-liability groups.

To the extent that out-of-pocket expense determines demand for ambulatory care, NHI should not alter patterns of utilization at either the upper or lower ends of the income-distribution spectrum. Medicaid now provides the indigent with the same entitlement available under any likely form of NHI. Therefore, the rate of utilization should remain unchanged. Those at or above the median income level have been able to afford to purchase out-of-pocket the major portion of their ambulatory care. Analysis of out-of-pocket expenditures from a national survey in 1970 reveals that approximately half of the utilization by the maximum-liability population would not exceed a \$150 deductible (see Table VI). Beyond this, expenditures would be subject to coinsurance; hence, few families are likely to have sufficient medical expenditures to entitle them to care at no further cost to themselves. For this reason, utilization should remain at or near present levels.

[†]HIP premium rates were supplied by the Research and Statistics Office of HIP. GHI rates are those in effect for municipal employees in fiscal 1975 and were supplied by the Office of Labor Relations, City of New York.

	Inc	ome
Expenditure	\$10,000-\$14,999	\$15,000 or more
None	5.9%	3.3%
Under \$50	18.5	9.8
\$50-\$99	21.1	21.4
\$100-249	33.8	35.1
\$250-499	13.8	19.0
\$500-999	5.3	8.2
\$1,000 or more	1.7	3.4
Total	100.0	100.0

Table VI. ANNUAL OUT-OF-POCKET HEALTH EXPENSE AMONG UPPER-INCOME GROUPS, 1970
(% DISTRIBUTION)

These figures include insurance premiums; however, subsequent medical increases in cost probably offset this factor. Because of the difficulties of adjusting these figures, we have simply used them as a reasonable approximation.

Source: National Center for Health Statistics: Personal out-of-pocket medical expenditures, 1970, Monthly Vital Stat Rep. (Suppl.) 22: April 1973.

The restraining effects of copayment provisions may conceivably be counteracted by the development of special coverage by private insurance companies to supplement NHI. Such supplementary coverage could protect the individual against all or most out-of-pocket liability and could significantly increase utilization. In 1973 such private programs were utilized by 57% of all Medicare clients to supplement or complement Medicare coverage.³

2) There will be a significant increase in the volume of care sought by those in the near-poor or sliding-liability group.

The approximately 2 million New Yorkers who have incomes slightly above Medicaid eligibility levels will benefit most from NHI. They will be able to purchase physicians' services for a limited out-of-pocket expense, whereas now they must bear the full cost or rely upon municipally subsidized services. It is impossible to predict accurately the magnitude of this new effective demand for physician services. However, if we assume that the present low utilization by this group, estimated at 3.5 visits per person (excluding any utilization of private care), will rise to the national average of 5.0 per person, an increase of between two and three million visits annually seems likely. This is probably a conservative estimate, and a closer approximation of the Medicaid population's rate of utilization due to the modest copayment requirements obviously would expand the volume of care which would be demanded even further.

3) Much of the new demand will be directed toward private practitioners.

Much of the new demand among the near poor will be directed to private physicians' offices rather than to institutional sources of care. We base this prediction of preference on the assumption that the preferences of this group are similar to those of their fellow citizens with both lower and higher incomes. The preference for private practitioners is evident in the present patterns of utilization by both upper-income families and Medicaid clients. The near poor now rely on municipal hospitals for much of their care. Once their out-of-pocket expense for ambulatory care remains constant regardless of the locus of care, these people will attempt to exercise their preference for private providers, who will be confronted with newly generated demand as well as with a shift of existing demand from the hospital sector.

Additional pressure on private practitioners is likely to come from the indigent, who may seek a larger share of their ambulatory care from this source. The Medicaid population is currently restricted in its access to private physicians because of the low fee structure, but if a more favorable fee structure is adopted under NHI, there may be a shift of demand by this group to private physicians.

4) Although the aggregate supply of private practitioners appears sufficient to meet new levels of demand, other factors, chiefly the predominance of specialty practice, will significantly limit their capability to produce the kinds of medical services which will be sought most by consumers.

New York City has a relatively large supply of physicians. In 1973 the American Medical Association reported 21,647 active physicians in New York City, of whom 8,754 (40%) were in hospital-based practice and 10,544 (49%) were in office-based practice (Table VII). There are no service data relating specifically to office-based practitioners in New York, but if national metropolitan averages for visits per week and regional averages of weeks worked per year are applied to the local supply, the potential volume of private ambulatory care is substantial (Table VIII). The office-based physicians could handle more than 46.8 million visits annually, or six for each New Yorker.

Of course, these are aggregate statistics and they do not indicate possible imbalances between the type of medical services sought by the public and the supply of physicians. It is difficult to estimate with any degree of precision the distribution of services that will be demanded by a population for whom there are no historical data. However, we have accepted the utilization rates of HIP clients as a first approximation of normal demand

	Number		Hos	pital bas	sed	Other	Inactive
	of physi- cians	Office based	Full-time staff	Resi- dents	Interns	activ- ities	or unclas- sified
General practice	1,993	1,799	121	28	0	45	N.A.
Internal medicine	4,397	1,795	387	1,245	453	517	N.A.
General surgery	2,057	792	178	774	218	95	N.A.
Obstetrics-	,						
gynecology	1,399	751	118	416	18	96	N.A.
Pediatrics	1,656	617	211	549	122	157	N.A.
All other	10,145	4,790	1,314	2,216	386	1,439	N.A.
Total	21,647	10,544	2,329	5,228	1,197	2,349	2,858

TABLE VII. DISTRIBUTION OF PHYSICIANS IN NEW YORK CITY, 1973

Source: Unpublished data supplied by the American Medical Association. We are indebted to Edward Bennett, statistician, Center for Health Services Research and Development, American Medical Association, for extracting this information from the physician masterfile.

TABLE VIII.	ESTIMATED SERVICE CAPABILITY OF OFFICE-BASE	ED
	PHYSICIANS IN NEW YORK CITY, 1973	

Specialty	Number of physicians	Average No. of office visits per week	Average weeks worked per year	Annual service capability
General practice	1,799	131.6	47.3	11,198,000
Internal medicine	1,795	83.6	46.8	7,023,000
General surgery	792	78.4	46.9	2,912,000
Obstetrics-gynecology	751	99.0	48.8	3,628,000
Pediatrics	617	137.2	47.6	4,029,000
All other	4,790	80.0	47.0	18,010,000
Total	10,544	94.0	47.2	46,800,000

Source: Unpublished data from the American Medical Association and *Profile of Medical Practice*. Chicago, Amer. Med. Assoc., 1973, pp. 56,62. In the absence of precise data for average visits and weeks worked for the "all other" category, we have made our own estimates.

by a population with no financial barrier to care (see Table IX). An analysis of the utilization of HIP ambulatory services by specialty indicates that nearly half of the services (47%) were provided by family practitioners; an additional 12% were provided by pediatricians. This is in marked contrast to the estimated distribution of the total capability of practitioners, only 25% of which consists of general practitioner services and 10% of pediatrics. These estimates suggest a short fall in those private medical services which are likely to be in the greatest demand. Even if some proportion of the services provided by internists are regarded as essentially family practice, the imbalance still exists.

N.A. = Data not available

	HIP	visits	Estimated office	capability
	No.	%	No. of visits	%
General practice	107,505	47.3	11,198,000	23.9
Internal medicine	7,574	3.3	7,023,000	15.0
General surgery	7,160	3.2	2,912,000	6.2
Obstetrics-gynecology	12,109	5.3	3,628,000	7.8
Pediatrics	26,389	11.6	4,029,000	8.6
All other	66,457	29.3	18,010,000	38.5
Total	227,194	100.0	46,800,000	100.0

TABLE IX. ANALYSIS OF THE 1972 UTILIZATION OF HIP AMBULATORY SERVICES BY SPECIALTY AND THE 1973 ESTIMATED CAPABILITY OF NEW YORK OFFICE-BASED PHYSICIANS BY SPECIALTY

Source: The American Medical Association (see Table VIII) and special tabulations prepared by the Research and Statistics Department, Health Insurance Plan of Greater New York (HIP).

The discussion of the capability of private physicians thus far has been based on existent factors of supply, assuming the continuation of present patterns of practice. The initiation of NHI, however, may alter this, particularly if a fee schedule is imposed which favors selected procedures. A study of professional practice in Montreal before and after the implementation of Medicare—the Canadian NHI, a compulsory universal health-insurance plan covering the cost of all physician services under a uniform fee schedule—revealed a 15% decrease in the average length of the physician's work week. This decrease resulted from the sharp reduction in the number of house calls and telephone consultations as well as of hospital visits by general practitioners and the concentration on office visits, presumably in response to more liberal payment for the latter.4 While this precise constellation of change may not occur in New York. where house calls already have been virtually eliminated, a redirection of professional practice from less to more economically rewarding activities may be anticipated, with, perhaps, a consequent diminution in hours of work.

5) Geographic imbalances also will limit the available supply of privately produced medical services, particularly among the poor and near-poor minority population living in segregated neighborhoods which have been drained of private practitioners.

The location of office-based practitioners will limit their capability to meet new demands. A crude analysis of physician-to-population ratios based on the distribution of office-based practitioners by borough (Table X) reveals a heavy concentration in Manhattan versus a sparse supply in the Bronx and Richmond. Within boroughs there is considerable further

i	Vew York	:				
	City	Bronx	Brooklyn	Manhattan	Queens	Richmond
General practice	4,386	5,548	4,665	3,263	4,229	6,783
Medical specialties	2,375	4,422	3,733	949	3,182	3,220
Surgical specialties	2,772	5,695	4,038	1,070	4,256	3,795
All other	3,062	8,542	8,723	842	6,577	7,970
Total	748	1,430	1,184	287	1,066	1,181

TABLE X. POPULATION OF NEW YORK CITY PER OFFICE-BASED PRACTITIONER, 1973

Source: American Medical Association: Distribution of Physicians in the U.S., Chicago, Amer. Med. Assoc., 1974, pp. 270-73.

variation by neighborhood. Although the city's extensive transportation system permits easy interborough utilization of physician services (most significantly between Manhattan and the Bronx), people prefer a physician close to their place of residence, particularly for their more common complaints.

Most seriously deprived of easily accessible private ambulatory care have been the black and Hispanic minorities concentrated in the ghetto. areas of Harlem, Bedford-Stuvvesant, South Bronx, and South Jamaica. The heavy postwar inflow of these populations was not matched by a commensurate increase in the number of physicians practicing in these communities. The combination of financial barriers to care during the decades before Medicaid, racial segregation, and the unattractive physical conditions within these areas served to deprive these people of medical personnel by the attrition of a preexisting physician supply and the failure of younger doctors, of any race, to replace them. The collection of data by community health-planning boards is under way, but in the absence of complete statistics on the availability of medical care to this population, some facts regarding central Harlem may be assumed to be typical. A survey by the Center for Community Health Systems and the Department of Pediatrics of the Faculty of Medicine, Columbia University, found that of 227 pediatricians and general practitioners with offices in upper Manhattan (which has a population of 650,000 persons), an area comprising three health districts (Riverside and Washington Heights, each 70% white, and central Harlem, more than 90% black), 57% were located in Riverside, 39% in Washington Heights, and a bare 4% in central Harlem.⁵ The physicians in central Harlem are well advanced in age, and there are no newcomers to succeed them. The attrition of private providers is reflected in the climbing clinic-utilization rates at Harlem Hospital; pediatric visits

alone increased by 44% between 1968 and 1971, half of these being ER encounters. The impact of expanded financial entitlement on a virtually nonexistent traditional private sector can only generate new entrepreneurial endeavors in the style of Medicaid mills to fill the vacuum. Accordingly, innovative efforts by existing institutions offer the most desirable response to meet the new demand in these neighborhoods.

6) The shortfall of private practitioners rendering family care will lead to a rationing of services either by physician-determined selection of patients or by increased waiting time.

If an NHI plan uses different fee schedules or different payment principles for different groups, this would lead to physician-determined selection of patients. For example, the Nixon administration bill mandated a statewide fixed reimbursement schedule for the no-liability and sliding-liability groups, but permitted the collection of higher fees from the maximum-liability group. Such a difference in permissible fees will act as a financial barrier for the poor and near poor in obtaining the services of private practitioners.

If a uniform-payment principle is applied to all groups, the collection mechanism may become critical. Requiring the physician to collect either full fees from the patient or partial fees from the carrier (in the form of insurance benefits) and the balance from the patient (in the form of the deductible and coinsurance charges) will cause physicians to be more selective in accepting patients. Doctors will avoid poorer patients who lack the available cash to pay fees out-of-pocket. The alternative, granting physicians full payment from the carrier with the government periodically collecting the coinsurance and deductible charges, usually takes the form of proposals for a NHI credit card which assures full payment to the physician. Under such a scheme a patient's income should make little difference to the physician. However, physicians may still impose a supplemental cash payment above the basic scheduled fee, as in fact some participating GHI physicians have done. Thus, even the adoption of the most equitable payment mechanism—uniform fees with a national healthcredit card—does not guarantee a nondiscriminatory physician response. Too many unknowns—the level of fees, the enforcement efforts, the willingness of consumers to pay additional fees—make prediction impossible.

If an equitable and well-monitored payment system is established, the newly entitled consumers will secure greater access (limited by geographical constraints) to private services which traditionally have been enjoyed by the maximum-liability group. The resultant competition would increase waiting time, with some consequent diminution of demand among upper-income patients, particularly for less serious ailments, and eventually would lead to some redistribution of services in favor of the lower-income groups. Such a scenario is suggested by the experience in Montreal. After the introduction of the Canadian NHI, the average waiting time both for a doctor's appointment and in the doctor's office increased, with the largest increases in the higher income groups. As a result, the average number of physician visits per person per year remained constant (five), but these shifted markedly from high to low-income groups.⁶

7) A large proportion of the ambulatory services which are now provided in institutional settings still will be required, but NHI funds will permit expansion and improvement of existing facilities.

Even under the most equitable NHI provisions, it is obvious that private practitioners will not be able to absorb the full volume of demand. Moreover, geographic maldistribution will operate to retain near-present levels of hospital-based care.

NHI, particularly if the federal government assumes responsibility for collecting copayments, will eliminate or significantly reduce the deficits which now arise in the operation of OPDs because hospitals cannot or will not refuse service to the large number of patients who lack resources to pay the full cost of their care. Consequently, hospitals will not face serious financial obstacles to improving their ambulatory services. When Medicaid was first enacted the liberal New York State eligibility criteria afforded hospitals a similar opportunity, and many began to take action. However, the cutbacks in Medicaid soon caused these hospitals to abandon their plans. The Department of Health of the City of New York also developed plans to use Medicaid to finance improvements in its ambulatory-care facilities, but the initial plan for a network of Neighborhood Family Care Centers (NFCCs) also was curtailed eventually because of Medicaid cutbacks. Thus, NHI may revive the efforts of municipal agencies to establish independent ambulatory-care facilities.

If municipal and voluntary facilities simultaneously seek to expand, shortages of manpower among all health-care sectors are likely to arise. The municipal agencies, historically in the least favorable competitive position, would probably experience the greatest difficulty in staffing new facilities; contractual arrangements with voluntary institutions for staff would probably continue to be a primary source of physician manpower.

8) Potential increases in the costs of ambulatory care will be related

more to rising unit prices than to greater utilization of ambulatory care.

Expenditures for ambulatory care have been a minor share of total health-care expenditures. One estimate⁸ is that ambulatory medical and ancillary care account for 20% of all health expenditures in the United States. (This percentage may be increased by shifts from inpatient to ambulatory care when both are insured equally, but such estimates are outside the scope of this paper.) The increase in the volume of care under NHI which was projected earlier—two to three million visits—would engender some cost increase. However, in a system of the magnitude of New York City's, this would constitute a relatively small percentage increase.

A more significant cost factor is the potential inflation of physician fees. Fee changes will be dependent upon the payment principle or principles written into the NHI program. A law permitting "customary and reasonable" fees or permitting charges in excess of scheduled rates to some patient groups would engender a substantial inflation of fees. The marked increase in prevailing fees during the years immediately following the implementation of Medicare certainly suggests such an outcome.

Probably the greatest threat to the containment of costs will come from hospital-based ambulatory care. Under the present system of cost-related payments, even with prospective rates, unit costs have risen rapidly. Even if this is partially a function of present accounting practices, the applicable costs under NHI still will exceed prevailing private physician's fees. Since the costs of hospital ambulatory care are closely linked to the costs of hospital inpatient care, containment of either will depend upon a tightly monitored regulatory system.

One alternative suggested to limit the costs of institutional ambulatory care is the separation of outpatient from inpatient services in the computation of costs. The 1974 Medicaid rates from several facilities which have been established independently of a hospital indicate that this approach does not necessarily lead to economies. The Martin Luther King, Jr. Health Center's cost per visit (\$51.78) exceeds that of Montefiore Hospital's outpatient clinic (\$46.19); the cost of St. Luke's neighborhood health-service program (\$48.00) exceeds that of its OPD (\$33.98); and the cost of the Department of Health's Bedford Health Center (\$34.27) is about equal to that of the St. John's Episcopal Hospital clinic (\$34.00). If a larger share of ambulatory care is rendered by reorganized and improved hospital-sponsored programs consequent to NHI, then total expenditures inevitably will increase.

9) Under an NHI permitting free choice, consumers probably will want to retain their options in selecting a source of ambulatory care, so capitation arrangements can expect only limited growth.

There is no evidence to suggest that capitation arrangements will grow if both patients and physicians have the option to choose between group practice financed by capitation payments and the free choice of independent physicians. New York has had only one major prepaid group practice (HIP) since 1947 and it has not experienced rapid growth in recent years. A review of HIP enrollment (excluding Medicaid) indicates little or no increase each year between 1968 and 1974. Moreover, among the largest group of potential clients—municipal employees—the portion selecting HIP rather than an alternative free choice arrangement has declined from 40% in 1970 to 35% in 1974.

Within the past year an attempt by the Connecticut General Life Insurance Company to establish a prepaid group practice to serve an employed population in parts of Brooklyn, lower Manhattan, and Staten Island failed to attract sufficient subscribers to assure financial viability. Although the sponsors contend that this may be attributed to the uncertainty surrounding federal regulations for group contracts, the fact remains that the plan evoked little consumer enthusiasm.

An effort to convert the Martin Luther King, Jr. Health Center to an HMO serving a Medicaid and near-poor population encountered similar marketing difficulties. Although the center had built up a stable constituency of patients, these patients were reluctant to relinquish their freedom of choice. It also failed to negotiate an acceptable capitation rate with the state government.

10) There are serious gaps in our knowledge and data which are required to anticipate the impact of NHI.

This analysis of the provision of present-day ambulatory services was impaired by the lack of recent local data on 1) demographic characteristics of the New York population relevant to the demand for medical care, such as age, sex, and race in relation to income and family size; 2) the total magnitude of services produced by office-based private practitioners in family practice and the various specialties; 3) the extent to which specialists are a source of general care; and 4) the intraborough location of private practitioners and the way in which location relates to the utilization of their services. Moreover, many of the findings of this study were derived from data on payments in the absence of more precise service statistics for different income groups. The collection and analysis of more

refined information in these areas are prerequisites for effective planning for NHI. Finally, any insurance plan that is implemented should be accompanied by the collection of comprehensive statistics on utilization.

SUMMARY

Based on recent national proposals, it may be assumed that an initial NHI plan will provide universal coverage, contain income-conditioned copayments, and continue the principles of free choice and fee-for-service in the selection and payment of physicians. The implications of such a system for ambulatory services in New York City are:

- 1) The extended entitlement to health-care financing provided by NHI will effect little change in the volume of care sought by persons at the upper and lower ends of the income-distribution scale.
- 2) The near poor will significantly increase their utilization of ambulatory services.
- 3) Much of this new demand will be directed toward private practitioners, the preferred source of care among all income groups.
- 4) Despite an adequate aggregate supply of office-based physicians, the high proportion of specialists will cause shortfalls in the supply of primary care.
- 5) The shortage of primary care by private physicians consequent to the vanishing supply of practitioners in low-income black and Hispanic neighborhoods will be intensified by increased demand among newly entitled groups.
- 6) The general shortage of primary-care physicians will lead to a rationing of services either by physician-determined selection of patients or by increased waiting time. Under a differential payment scheme, poorer patients will be discriminated against; with a more equitable payment mechanism there will be some redistribution of services in favor of low-income populations.
- 7) The shortage of private sources of primary care will perpetuate institutionally based ambulatory services; these institutional services may be enhanced by the availability of new revenues.
- 8) The cost of ambulatory care, now 20% of all health expenditures, may increase, depending upon the payment principle or principles incorporated within NHI, with hospital unit costs potentially the most serious inflationary threat.
- 9) HMO and other capitation schemes are unlikely to undergo significant expansion.

		Family income	
Family members (No.)	No liability	Sliding liability	Maximum liability
1	0 — \$2,400	\$2,400 — \$6,400	\$6,400+
2	2,400 - 3,600	3,600 - 7,600	7,600+
3	3,600 — 4,200	4,200 - 8,200	8,200+
4	4.200 - 4.800	4.800 — 8.800	8,800+
5	4.800 - 5.200	5,200 — 9,200	9,200+
6	5.200 - 5.600	5,600 - 9,600	9,600+
6+	5,600 — 6,800	6,800 - 10,800	10,800+

TABLE XI. THREE OUT-OF-POCKET LIABILITY GROUPS DEFINED IN TERMS
OF 1973 CURRENT DOLLAR FAMILY INCOME AND FAMILY SIZE

Where income cutoff points for defining the three groups differed from income cutoff points in the 1973 Current Population Survey, linear interpolations were made to estimate group size.

10) Further studies a) of the demographic characteristics and present patterns of ambulatory care of the different income groups in New York City and b) of the magnitude and characteristics of office-based private practice are necessary to anticipate more accurately the impact of NHI and to plan for optimal implementation.

Appendix A

METHOD OF ESTIMATING POPULATION GROUPS

The data used in estimating the size of the population groups were drawn from the 1973 Current Population Survey (CPS) conducted by the U.S. Bureau of the Census. Special tabulations from the survey relating to the population of New York City were purchased from the Bureau of the Census by the Center for New York City Affairs of the New School for Social Research. These data were made available to us through the cooperation of Blanche Bernstein, Director of Research, and Arley Bondarin, Research Associate of the Center for New York City Affairs.

The CPS data provide information on income by family size for families and unrelated individuals. This information was converted from family units to population counts by multiplying by the appropriate number of family members, assuming that families in the more-than-six-member group averaged nine persons.

The population estimates were converted into the three out-of-pocket liability groups by defining each group in terms of family income as shown in Table XI. Where income cutoff points for defining the three groups differed from income-cutoff points in the CPS tabulations, linear interpolations were made to estimate group size.

	Municipal ER	Municipal OPD	Voluntary ER	Voluntary OPD
Blue Cross	4.6%	3.0%	20.2%	4.1%
Medicare	4.5	12.2	6.7	14.9
Medicaid	36.2	33.2	33.4	41.3
Self-paying*	45.3	43.9	22.0	29.8
Other	9.3	7.8	17.7	9.9
Total	100.0	100.0	100.0	100.0

TABLE XII. PERCENTAGE DISTRIBUTION OF HOSPITAL AMBULATORY CARE VISITS BY METHOD OF PAYMENT

Appendix B

METHOD OF ESTIMATING SERVICES

Hospital OPD and ER services. The total number of visits to OPD and ER facilities of voluntary, municipal, and proprietary hospitals in 1973 were supplied by Leonard Schrager, associate executive director, Health and Hospital Planning Council of Southern New York.

The total visits were allocated to the population groups on the basis of data relating to the method of payment for hospital ambulatory services which were gathered as part of the Survey of Hospital Ambulatory Care, June 3—June 21, 1974, conducted by the Research and Special Projects Department of the Blue Cross—Blue Shield of Greater New York. Special tabulations from the survey relating to hospitals in New York City were made available by Anne Cugliani and Jerome Jaffe of that agency.

The survey yielded data on the percentage distribution of method of payment for voluntary and municipal hospital OPDs and ERs. These figures are presented in Table XII. The methods of payment were associated with population groups as shown in Table XIII.

Services of the Department of Health. Figures for the total number of services for each Department of Health program were taken from the departmental publication, Service and Vital Statistics by Health Care District, New York City, 1972. The total for "other services" includes visits to all Department of Health clinics except those to dental and child-health clinics.

The total services were divided among the population groups according to estimates of the share of services provided to those who are eligible for Medicaid by the Bureau of Child Health for child-health stations (33%)

^{*}This term refers to all patients who have no third-party coverage. Payments range from nothing to part of the charge; a very small number of visits are paid in full.

Source: Health and Hospital Planning Council of Southern New York and "Survey of Hospital Ambulatory Care, June 3-June 21, 1974," Special Projects Department, Blue Cross-Blue Shield of Greater New York.

TABLE XIII. ASSOCIATION OF POPULATION GROUPS WITH METHODS OF
PAYMENT FOR CARE IN OUTPATIENT DEPARTMENTS (OPD) AND
EMERGENCY ROOMS (ER) OF VOLUNTARY AND MUNICIPAL HOSPITALS

	Municipal ER*	Muncipal OPD	Voluntary ER*	Voluntary OPD
Blue Cross	Maximum	Sliding	Maximum	Maximum
Medicare	Maximum	Sliding	Maximum	Maximum
Medicaid	None	None	None	None
Self-paying†	Sliding	Sliding	Sliding	Sliding
Other	Maximum	Sliding	Maximum	Maximum

^{*}All visits to proprietary emergency rooms were assigned to the maximum liability group and were totalled with the voluntary ER visits assigned to this group.

†This term refers to all patients who have no third-party coverage.

and by the Bureau of School Health for the school-health program (37%). No estimates were available for the distribution of the remaining category of visits, so it was assumed that the percentage of visits by those eligible for Medicaid was similar to that for other departmental services (35%).

HIP enrollment and services. Enrollment and service statistics for the HIP groups located in New York City (the two groups in suburban counties were excluded) were supplied by Marilyn Einhorn, Research Director of HIP. The enrollment figures were drawn from a 1972 midyear count. The service statistics are drawn from a count of services provided during 1972.

The enrollment was divided among the Medicaid and maximum-liability groups based on the same data. Services were allocated to the two groups in proportion to the size of their enrollments.

Union health centers. All figures relating to the total eligible population, the population using these centers, and the services provided are drawn from a survey of union health centers by Sanford Lenz of the New York State School of Industrial and Labor Relations. The findings of this survey are being prepared for publication, but preliminary data were made available for this paper.

Free-standing facilities. A complete listing of all facilities is contained in the New York State Department of Health Health Facilities Directory, 1974, vol. 3. Service statistics for 1973 for 36 facilities providing medical services exclusive of methadone maintenance were made available by the Bureau of Health Care Reimbursement, Division of Health Economics, New York State Department of Health. These 36 facilities are the largest free-standing clinics in New York City; the total for these facilities is the

Type of service	Estimated number of Number of ambulatory Average services visits* membership			Estimated utilization rate
Surgery in hospital	58,547	117,094	1,415,774	0.0827
Surgery out of hospital	111,980	223,960	1,415,774	0.1581
Maternity	18,045	198,495	1,415,774	0.1402
Medical in hospital	32,092	•		
Consultation in hospital	16,474			
Home and office visits	2,833,001	2,833,001	1,328,718	2.1321
Consultation out of hospital	141,495	141,495	1,328,718	0.1064
X rays	227,961	•	, ,	
Laboratory	636,942			
Anesthesia	53,543			
Visiting nurse	805			
Radiation therapy	5,458	5,458	1,415,774	0.0038
Ambulance	1,965	,	, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	
Total	4,138,308	3,519,503	}	2.6233

TABLE XIV. GHI ENROLLMENT AND SERVICES, 1974 (EXCLUDING TYPE E COVERAGE)

one used in Table II. The services were allocated to the population groups in a 50%-50% ratio on the basis of method-of-payment data from one of the larger facilities, the Martin Luther King, Jr. Health Center.

Group Health Incorporated. Enrollment and service statistics for GHI come from unpublished data made available through the cooperation of George Melcher, president, and Lynn Doctor, vice-president of GHI. Total enrollment in 1974 for all GHI plans was 1,753,218. A survey by GHI in 1971 indicated that 55% of all GHI clients resided in New York City. The recent availability of GHI Type E coverage for municipal employees increased this proportion to 60% in 1974, according to estimates by GHI; thus, we estimated that 1,051,930 GHI clients now reside in New York City.

Statistics on services for those with regular GHI coverage were used to estimate the volume of visits to physicians by this group. GHI service figures were converted to estimates of the number of physician's visits and rates of utilization as indicated in Table XIV. The combined rate of utilization (2.6233 visits) was applied to the estimated total New York City resident enrollment (1,051,930 members) to yield the estimated total volume of GHI's private-practitioner services included in Table II.

Medicaid private physician services. Data on the total number of physician services paid for by Medicaid during the last three quarters of 1973

^{*}Ambulatory visits per service are based on estimates in Avnet, H.: Physician Service Patterns and Illness Rates, New York Group Health Insurance, Incorporated, 1967, pp. 47-48.

and the first quarter of 1974 were made available by the Department of Health of the City of New York with the cooperation of Dr. John Gentry and Fran Nojovitz. Ambulatory services were defined to include all home and office visits by physicians exclusive of methadone-maintenance and psychiatric visits, abortions, and maternity care.

REFERENCES

- Davis, K.: A decade of policy developments in providing health care for low-income families. Conf. on a Decade of Federal Antipoverty Policy, 1975. Racine, Wisc. Unpublished.
- Union Family Medical Fund of the Hotel Industry of New York City: Annual Statistical Report for the Year Ended May 31, 1974. Unpublished.
- Mueller, M.S.: Private health insurance in 1973: A review of coverage, enrollment and financial experience. Soc. Sec. Bull. 38:21, 1975.
- Enterline, P., McDonald, J.C., McDonald, A.D., Davignon, L., and Salter, V.: Effects of "free" medical care on medical practice—The Quebec experience. N. Eng. J. Med. 288:1152, 1973.

- Center for Community Health Systems and Department of Pediatrics, Faculty of Medicine, Columbia University: A Proposal to the Robert Wood Johnson Foundation for a Child Health Care Project. October 1973. Unpublished.
- Enterline, P., Salter, V., McDonald, A.D., and McDonald, J.C.: The Distribution of medical services before and after "free" medical care—The Quebec experience. N. Eng. J. Med. 289:1174, 1973.
- Piore, N.: Problems and Opportunities for Community Hospitals in Primary Care. In: Community Hospitals and the Challenge of Primary Care. New York, Center for Community Health Systems, Columbia University, 1975.